

*Observations of Comet b, 1883 (Pons-Brooks), made at the Royal Observatory, Greenwich.**(Communicated by the Astronomer Royal.)*

The observations on September 5 and 26 with the South-East Equatorial (aperture 12·8 inches), and those on October 21 and 29 with the East or Sheepshanks Equatorial (aperture 6·7 inches), were all made by taking transits over two cross-wires at right angles to each other, and each inclined 45° to the parallel of declination.

Observations of Comet b, 1883 (Pons-Brooks), with the S.E. Equatorial. Aperture 12·8 inches.

| Greenwich Mean Solar Time | Obs. | $\delta - \star$ R.A. | Corr. for Parallax in R.A. | $\delta - \star$ N.P.D. | Corr. for Parallax in N.P.D. | No. of Comp. | App. R.A. | App. N.P.D. |
|------------------------------------|------|--------------------------|----------------------------------|----------------------------|------------------------------------|-----------------|-------------|--------------|
| 1883, Sept. d h m | | m s | | ' " | | | h m s | ° ' " |
| 5 14 11 | M. | +0 42'44 | | +1 21'0 | | 5 | 16 33 12'10 | 25 33 32'2 a |
| | | -0 24'90 | | +8 26'8 | | 5 | | b |
| 26 9 55 | M. | +0 15'31 | +0 35 | +1 20'1 | -1'5 | 4 | | c |
| | | -0 32'44 | +0 35 | +8 29'8 | -1'5 | 4 | 16 25 47'29 | 30 5 54'8 d |

Assumed Mean Places of the Comparison Stars.

| Star. | Star's Name. | R.A. 1883'0. | N.P.D. 1883'0. | Authority. |
|-------|-----------------------|----------------------|----------------------|----------------------|
| a | Oeltz. Arg. (N) 16374 | h m s 16 32 29'78 | ° ' "6 25 32 31'6 | Oeltz. Arg. (N) 1842 |
| b | Anonymous | | | |
| c | " | | | |
| d | Oeltz. Arg. (N) 16270 | 16 26 20'33 | 29 57 42'7 | Oeltz. Arg. (N) 1842 |

Sept. 5. The comet was a very diffused and exceedingly faint object, becoming more and more difficult as it got lower. The positions are therefore exceedingly rough.

The observations are not corrected for parallax. The effect of refraction is insensible.

Sept. 26. Comet fairly bright; round; no tail; central condensation. Two transits of the first and second edge of the comet were taken to determine the diameter. The mean of these transits gives for the apparent diameter $2' 21'' \cdot 0$.

The star *c* was very faint.

The observations are corrected for parallax. The effect of refraction is insensible.

Observations of Comet b, 1883 (Pons—Brooks), with the East Equatorial.
Aperture 6·7 inches.

| Greenwich Mean Solar Time. | Obs. | ♂—* | Corr. for Par. in R.A. | ♂—* | Corr. for Par. in N.P.D. | No. of Comp. | App. R.A. | App. N.P.D. |
|-------------------------------------|------|----------|------------------------------|----------|--------------------------------|-----------------|-------------|--------------|
| 1883, Oct. d h m | | m s | s | ' '' | ' '' | | h m s | ° ' '' e |
| 21 11 9 | A.D. | −0 46·39 | +0·36 | + 4 28·6 | −2·5 | 2 | 16 46 12·20 | 35 19 20·8 e |
| 11 12 | | −3 45·14 | +0·36 | + 7 6·2 | −2·6 | 1 | 16 46 17·42 | 35 20 27·0 f |
| 11 38 | | +2 14·35 | +0·35 | − 3 42·7 | −2·8 | 3 | 16 46 16·77 | 35 19 52·1 g |
| 29 6 34 | A.D. | +1 26·66 | +0·33 | + 3 31·6 | −1·2 | 3 | 16 58 51·16 | 36 50 18·0 h |
| 6 49 | | −2 13·91 | +0·34 | − 6 26·3 | −1·4 | 2 | | i |
| 7 21 | | −2 35·65 | +0·35 | +13 43·5 | −1·7 | 2 | 16 58 43·20 | 36 49 55·1 j |

Assumed Mean Places of the Comparison Stars.

| Star. | Star's Name. | R.A. | N.P.D. | Authority. |
|-------|-----------------------|-------------|------------|----------------------|
| | | h m s | ° ' '' | |
| e | Arg. Z + 54°—1839 | 16 46 59·23 | 35 15 7·8 | Bonn Obs., vol. v. |
| f | Arg. Z + 54°—1846 | 16 50 3·18 | 35 13 36·8 | " |
| g | Oeltz. Arg. (N) 16534 | 16 44 3·07 | 35 23 49·9 | Oeltz. Arg. (N) 1842 |
| h | Arg. Z + 53°—1910 | 16 57 25·10 | 36 47 1·5 | Bonn Obs., vol. v. |
| i | Anonymous | | | |
| j | Oeltz. Arg. (N) 16790 | 17 1 19·44 | 36 36 27·1 | Oeltz. Arg. (N) 1842 |

Oct. 21. Comet very faint and difficult to observe; has a stellar nucleus.

Stars e and f about the tenth magnitude; c about the eighth.

Oct. 29. Comet faint and difficult to observe.

The observations are corrected for parallax. The effect of refraction is insensible.

The initials A.D. and M. are those of Mr. Downing and Mr. Maunder.

Royal Observatory, Greenwich:
1883, Nov. 9,

Observations of the Variable Star R Carinæ from May 1880 to Sept. 1883. By John Tebbutt.

My attention was first drawn to this star in May 1880 by the remarks of Dr. Gould in the *Uranometria Argentina*, who was, I believe, the first to point out its variability. It is synonymous with the star numbered 3932 in Lacaille's Catalogue of 9766 stars. Perceiving that it was one of the most remarkable variables beneath the horizon of northern Observatories I at once resolved to follow its variations systematically. I have therefore recorded its magnitude at every suitable opportunity. During the visibility of the star to the unassisted eye my comparisons were made with a selection of neighbouring stars from the *Uranometria*; when the variable became telescopic they were